IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of
diGirolamo et al.

Serial No.: **10/701,190**

Filed: **November 4, 2003**

For: **STUD SPACER WITH INTERLOCKING PROJECTIONS**

Attorney's Docket No: **4782-042**

Patent Pending

Examiner: Hunter M. Dreidame

Group Art Unit: 3633

Confirmation No.: 5075

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APPEAL BRIEF

(I.) REAL PARTY IN INTEREST

The real party in interest is The Steel Network, Inc.

(II.) RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

(III.) STATUS OF CLAIMS

Claims 1-34 are pending in this application. Claims 1-33 are rejected and are appeal herein. Claim 34 is objected to.

(IV.) STATUS OF AMENDMENTS

All amendments have been entered.

(V.) SUMMARY OF CLAIMED SUBJECT MATTER

Claim 1 is directed to a stud spacer (10) that extends between two studs (24) in a wall. See p. 3, ¶ 7 and Figure 1. The stud spacer (10) includes a main member (30) adapted to extend between two studs (24). See, p. 3, ¶ 8 and Figure 1. The main member includes first and second end portions (34A, 34B). See, p. 5, ¶ 1 and Figure 1. A projection (50) extends from each end portion (34A, 35A) and each projection (50) is configured to interlock with similar projections (50) of other stud spacers (10). See, p. 5, ¶ 4 and Figure 1.

Claim 7 is directed to a stud spacer assembly for extending between a series of studs (24). See p. 2, ¶ 4. The stud spacer assembly includes at least first and second stud spacers (10) wherein each stud spacer (10) extends between a pair of studs (24). See p. 2, ¶ 4. The first stud spacer (10) includes a first projection (50) and the second stud spacer (10) includes a second projection (80). See p. 2, ¶ 4 and Figure 2A. When the two stud spacers (10) are

connected, the first and second projections (50, 80) interlock to connect the first and second stud spacers (10) together. See p. 6, ¶ 2 and Figure 2B. Each projection (50, 80) includes a locking surface (54, 84) and a stop (60, 90). See p. 6, ¶ 2 and Figure 2B. When interlocked, the locking surface (54) of the first projection (50) is engaged with the stop (90) of the second projection (80) and the locking surface (84) of the second projection (80) is engaged with the stop (60) of the first projection (50). See p. 6, ¶ 2 and Figure 2B.

Claim 16 is directed to wall structure including a series of spaced apart studs (24) with each having an opening (24B) formed therein. See p. 2, ¶ 5. The wall structure further includes a series of stud spacers (10) extending between respective studs (24). See p. 5, ¶ 4. Each stud spacer (10) includes first and second projections (50, 80) that extend from opposite ends of the stud spacer (10). See p. 5, ¶ 4. The first and second projections (50, 80) of each stud spacer (10) are adapted to connect to first and second projections (50, 80) of other stud spacers (10) so as to interconnect the stud spacers (10) of the wall structure. .See p. 5, ¶ 4. Each projection (50, 80) includes a locking surface (54, 84) and a locking stop (60, 90). See p. 6, ¶ 2. When interconnected the locking surface (54) of the first projection (50) is engaged with the locking stop (90) of the second projection (80) and the locking surface (84) of the second projection (80) is engaged with the locking stop (60) of the first projection (50). See p. 6, ¶ 2.

Claim 19 is directed to a method of interconnecting a first stud spacer with a second stud spacer extending between studs (24) in a wall structure wherein the first stud spacer (10) includes a first projection (50) and the second stud spacer includes a second projection (80). See p.6, ¶ 1 and Figure 2A. The method includes projecting the first and second projections (50, 80) of the first and second stud spacers (10) through an opening in a stud (24B). See p. 4, ¶ 7 and Figure 1. The first projection (50) is projected through an opening (92) in the second projection (80) and engages a locking surface (54) associated with the first projection (50) with a stop (90) associated with the second projection (80). See p. 5, ¶ 2, p. 6, ¶ 4 and Figure 2C . Finally the method includes projecting the second projection (80) through an opening (62) in the

first projection (50) and engaging a locking surface (84) associated with the second projection (80) with a stop (60) associated with the first projection (50). See p. 8, last paragraph through p. 9 and See Figure 2D.

(VI.) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-33 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,912,894 (hereinafter "Platt").

(VII.) ARGUMENT

A. The Law of Anticipation under 35 U.S.C. § 102(b)

To determine whether a prior art reference anticipates a claim, the Examiner must first construe each claim term and then compare the properly construed claim to the prior art. *Helifix Ltd. v. Vlok-Lok*, Ltd., 208 F.3d 1339 (Fed. Cir. 2000). In construing a claim term the Examiner must give a claim term its plain and ordinary meaning unless the term has been specifically defined by the applicant. See MPEP §2111. While the Examiner can give a claim term is broadest reasonable interpretation, it must be reasonable and it must consistent with the specification and consistent with how a person of ordinary skill in the art would construe the term in light of the specification. *In re Hyatt*, 211 F.3d 1367 (Fed. Cir. 2000). The properly construed claim is then compared to a single prior art reference. After the claim terms have been properly construed, a prior art reference can anticipate a claim only if the reference discloses each and every limitation of the claim. *In re Paulson,* 30 F.3d 1475 (Fed. Cir. 1994).

B. Claims 1-33 are Not Anticipated by Platt

The principal issue presented is one of claim construction. Particularly the claim terms at issue are "stud" and "stud spacer." All claims on appeal include these two terms. Claims 16 and 19 are representative and are as follows:

16. A wall structure, comprising:
    a. a series of spaced apart studs with each stud having an opening formed therein;
    b. a series of stud spacers extending between respective studs;
    c. each stud spacer including first and second projections that extend from opposite ends of the stud spacer;
    d. said first and second projections of each stud spacer adapted to connect to first and second projections of other stud spacers so as to interconnect the stud spacers of the wall structure; and
    e. each projection including a locking surface and a locking stop and wherein when interconnected the locking surface of the first projection is engaged with the locking stop of the second projection and the locking surface of the second projection is engaged with the locking stop of the first projection.

19. A method of interconnecting a first stud spacer with a second stud spacer extending between studs in a wall structure wherein the first stud spacer includes a first projection and the second stud spacer includes a second projection, comprising the steps of:
    a. projecting the first and second projections of the first and second stud spacers through an opening in a stud;
    b. projecting the first projection through an opening in the second projection and engaging a locking surface associated with the first projection with a stop associated with the second projection; and
    c. projecting the second projection through an opening in the first projection and engaging a locking surface associated with the second projection with a stop associated with the first projection.

1. "Stud spacer" is a term of art that means a member in a wall that spaces studs

Every claim on appeal is limited to a stud spacer, and without question there is a dispute as to the proper construction of these claim terms. Applicants have proffered a claim construction for both "stud spacer" and "stud." Repeatedly the Patent Office has been urged to

set forth an explicit construction for "stud" and "stud spacer." In the Advisory Action of November 21, 2007, the Patent Office finally construed "stud", but failed to offer a construction for "stud spacer."

First, with respect to the claim term "stud spacer," this is a term of art. It is commonly and extensively used in the construction industry, especially in light steel framing. The plain and ordinary meaning of "stud spacer" is the same meaning that it has as a term of art. The plain and ordinary meaning of "stud spacer" is:

> a member used in a wall that is interconnected between successive studs and which spaces the studs, and in some cases, structurally reinforces the stud and the wall.

The Patent Office is referred to four exemplary U.S. patents: U.S. Patent No. 6,701,689; U.S. Patent No. 6,021,618; U.S. Patent No. 5,274,973; and U.S. Patent No. 4,625,415. All four patents use the term "stud spacer" as a term of art, and all four patents use the term "stud spacer" in its plain and ordinary sense to mean a member used in a wall that interconnects successive studs, and which spaces the studs and in some cases structurally reinforces the studs and the wall.

This proffered construction of "stud spacer" is consistent with the specification. Note in Figure 1 where there is a wall structure shown and wherein the stud spacers 10 extend between the studs 24. Moreover, this construction of "stud spacer" is consistent with how a person of ordinary skill in the art would construe that term, especially in view of the specification. To a person of ordinary skill in the art the term "stud spacer" means a member that extends between and spaces studs in a wall. A person of ordinary skill in the art would never refer to a component of a suspended ceiling as a stud spacer. The Patent Office has offered no evidence of any type that shows that the plain and ordinary meaning of "stud spacer" is so broad as to encompass structures within a suspended ceiling. That is, the Patent Office has offered no dictionary definition, no articles from any trade journals, or no evidence from patents suggesting

that the term "stud spacer" can be so broadly construed as to encompass components of a suspended ceiling structure.

In the end there is no evidence of record to suggest that Applicants' proffered construction is not the plain and ordinary meaning of "stud spacer" or that the term "stud spacer" has any other plain or ordinary meaning. The Patent Office has refused to explicitly construe this term. All that is known is that the Patent Office's construction is so broad that it encompasses the cross ties 15 in Platt's suspended ceiling structure. Whatever the construction, it is unreasonably broad and no support exists for the construction.

2. Properly construed "stud spacer" does not encompass the cross ties in Platt's suspended ceiling

The Examiner's Section 102 rejection is based on the Platt patent, U.S. Patent No. 4,912,894. Platt discloses a suspended ceiling structure that is made up of a series of cross ties 15 and beams 13. Platt, Fig. 1; col. 3, ll. 37-43.

Cross ties 15 are not stud spacers. They do not extend between studs and they form no part of a wall structure. To the contrary, cross ties 15 extend between horizontal beams 13 as shown in Figure 1 in Platt.

3. "Stud" properly construed means an upright post in a wall

As set forth in Section 2111.01 MPEP, claim construction begins with applying the plain and ordinary meaning to a claim term. The plain and ordinary meaning of "stud" is an upright post in a wall for supporting drywall, wall boarding, or similar material. The dictionary definition of "stud" is:

> an upright post in the framework of a wall for supporting sheaths of lathe, wall board or similar material.

See Yahoo!Education, http://education.yahoo.com/reference/dictionary/entry/stud (Exhibit A) (Applicants proffered this dictionary definition in their response dated May 8, 2007).

This construction of "stud" is again consistent with the plain and ordinary meaning of the term. It is further consistent with the specification as the specification discloses a wall structure being made up of vertical studs or posts. Furthermore, the construction is consistent with how a person of ordinary skill in the art would construe stud. To a person of ordinary skill in the art, in the context of Applicants' specification, "stud" would mean an upright post in a wall structure that supports wall boarding, lathe, drywall, etc. The Patent Office has presented no agreements as to why Applicants' construction is wrong.

To a person of ordinary skill in the art, the term "stud" is never be construed so broadly as to encompass a beam in a suspended ceiling structure. There is absolutely no evidence of record that suggests that the term "stud" as used in the present application means anything other than an upright post in the framework of a wall structure.

4. The Examiner has refused to construe "stud spacer" and the Examiner's construction of "stud" is wrong and unsupported

The Examiner has refused to construe the claim term "stud spacer". However, after Applicants urged the Examiner to engage in claim construction, the Examiner finally in the Advisory Action of November 12, 2007 did proffer a construction for "stud." After arguing repeatedly that the Patent Office had given "stud" "its broadest reasonable interpretation", the Examiner finally stated that "stud" "is being interpreted as a post in a framework for supporting sheets." Adv. Action of Nov. 12, 2007, continuation of ¶11.

Respectfully, there is no support for this construction. The construction does not comply with the plain and ordinary meaning of "stud" and there is no evidence in the record that suggests that it does. The Examiner proffers no evidence that this construction comports with common usage. Indeed, there is no dictionary definition offered, nor is there any explanation of how the Examiner arrived at this construction.

It appears that the Examiner relied on the doctrine of "the broadest reasonable interpretation" to support the proffered construction. However, the broadest reasonable construction principle has specific limits. First and foremost, the construction must be reasonable. If the construction is unreasonable it is on its face an improper construction. Secondly, the rule is not simply that the Patent Office can give a claim term its broadest reasonable construction, but there are two other important caveats to this rule of claim construction. The construction must be consistent with the specification and the construction must be consistent with how a person of ordinary skill in the art would construe the term in light of the specification. The Examiner's construction fails all of these tests. Furthermore, in arriving at the proper construction, the Examiner is obligated to construe terms in accordance with Section 2111.01 of the MPEP which requires that terms such as "stud spacer" and "stud" be given their plain and ordinary meaning. That section of the MPEP and that principle has been ignored in this case.

5. Platt does not anticipate the claims even under the Examiner's flawed construction

As noted above, respectfully, the Examiner's construction of "stud" is wrong. But even the Examiner's construction of "stud" and how the term "stud spacer" would be logically construed based on the Examiner's construction of stud, does not result in Platt anticipating the claims. This is because the Examiner's construction includes the important term of "post". The term "post" is an upright or vertical structure. Common examples of posts are fencepost, lamppost, sign post. The plain and ordinary meaning of post is a long piece of material set upright to serve as a marker or support.

There are no posts in Platt's suspended ceiling structure. The beams 13 that extend horizontally through Platt's suspended ceiling structure are not posts. They do not extend upright. Indeed, Platt specifically refers to them as beams.

The Examiner repeated argues that Applicants have not specifically claimed the orientation of the studs and stud spacers. Respectfully, that misses the point. The issue is claim construction with respect to two claim terms, and whether the claims as properly construed are anticipated by Platt. Properly construed there is no anticipation.

Conclusion

For the foregoing reasons, the Board is urged to reverse the Examiner's rejection of claims 1-33.

(VIII.) CLAIMS APPENDIX

1. A stud spacer for extending between two studs comprising:

   a. a main member adapted to extend between the two studs;

   b. the main member including first and second end portions;

   c. a projection extending from each end portion;

   d. wherein the main member and the projections form the stud spacer; and

   e. wherein the projections of the main member are configured to interlock with similar projections of other stud spacers.

1. The stud spacer of claim 1 wherein each projection includes a locking surface, an opening, a deflector disposed adjacent the opening, and a stop.

2. The stud spacer of claim 2 wherein when two projections are interlocked, the locking surface of one projection engages the stop of the other projection.

3. The stud spacer of claim 1 wherein each projection is elongated and when connected to a similar projection at least partially overlies or underlies the similar projection.

4. The stud spacer of claim 1 wherein each of the two projections includes a deflectable terminal end and an opening.

5. The stud spacer of claim 1 wherein each projection includes a terminal end portion, a locking tab disposed on the terminal end portion, a deflector disposed inwardly of the locking tab; an opening formed in the projection adjacent the deflector; and a stop disposed inwardly of the opening.

6. A stud spacer assembly for extending between a series of studs, comprising:

a. at least first and second stud spacers wherein each stud spacer extends between a pair of studs;

b. said first stud spacer including a first projection and said second stud spacer including a second projection;

c. said first and second projections adapted to interlock so as to connect the first and second stud spacers together; and

d. wherein each projection includes a locking surface and a stop and wherein when interlocked, the locking surface of the first projection is engaged with the stop of the second projection and the locking surface of the second projection is engaged with the stop of the first projection.

7. The stud spacer assembly of claim 7 wherein when connected the first and second projections overlie each other.

8. The stud spacer assembly of claim 8 wherein each projection includes an opening and wherein when connected the first projection extends through the opening of the second projection and the second projection extends through the opening of the first projection.

9. The stud spacer assembly of claim 9 wherein at least a portion of each projection is at least slightly yieldable such that a portion of each projection can slightly flex during the course of interconnecting the projections.

10. The stud spacer assembly of claim 7 wherein each projection includes an opening and a deflector and wherein the locking surface of each projection is formed on a

terminal end portion of the projection and wherein when connected the terminal end portion of the first projection projects through the opening in the second projection and the terminal end portion of the second projection projects through the opening in the first projection.

11. The stud spacer assembly of claim 11 wherein the deflector of the first projection deflects the terminal end of the second projection through the opening of the first projection and wherein the deflector of the second projection deflects the terminal end of the first projection through the opening in the second projection.

12. The stud spacer assembly of claim 7 wherein the locking surface includes a tab and the stop includes a tab receiving opening and wherein when the first and second projections are interconnected the first projection is extended over a portion of the second projection and a portion of the first projection is inserted through the opening in the second projection such that the locking tab of the first projection seats within the tab receiving opening formed in the second projection and wherein the second projection is extended underneath a portion of the first projection and a portion of the second projection is inserted through the opening in the first projection wherein the locking tab of the second projection seats within the tab receiving opening of the first projection.

13. The stud spacer of assembly of claim 13 wherein each projection includes a deflector disposed adjacent the tab receiving opening and wherein the deflector on the first projection deflects a portion of the second projection upwardly through the opening in the first projection, and wherein the deflector in the second projection deflects a portion of the first projection downwardly through the opening in the second projection.

14. The stud spacer assembly of claim 7 wherein the locking surface of each projection includes a tab and wherein the stop of each projection includes a tab receiving opening and when the projections are connected the respective tabs are seated within the tab receiving openings.

15. A wall structure, comprising:

a. a series of spaced apart studs with each stud having an opening formed therein;

b. a series of stud spacers extending between respective studs;

c. each stud spacer including first and second projections that extend from opposite ends of the stud spacer;

d. said first and second projections of each stud spacer adapted to connect to first and second projections of other stud spacers so as to interconnect the stud spacers of the wall structure; and

e. each projection including a locking surface and a locking stop and wherein when interconnected the locking surface of the first projection is engaged with the locking stop of the second projection and the locking surface of the second projection is engaged with the locking stop of the first projection.

16. The wall structure of claim 16 wherein when connected the respective projections at least partially overlie one another.

17. The wall structure of claim 17 wherein the first projection includes a terminal end portion and an opening and the second projection includes a terminal end and an opening and

wherein the terminal end portions of the respective projections are projected through the openings within the projections when the projections are interconnected.

18. A method of interconnecting a first stud spacer with a second stud spacer extending between studs in a wall structure wherein the first stud spacer includes a first projection and the second stud spacer includes a second projection, comprising the steps of:

a. projecting the first and second projections of the first and second stud spacers through an opening in a stud;

b. projecting the first projection through an opening in the second projection and engaging a locking surface associated with the first projection with a stop associated with the second projection; and

c. projecting the second projection through an opening in the first projection and engaging a locking surface associated with the second projection with a stop associated with the first projection.

19. The method of claim 19 including engaging the first projection with a deflector associated with the second projection and deflecting the first projection through the opening in the second projection, and engaging the second projection with a deflector associated with the first projection and deflecting the second projection through the opening in the first projection.

20. The method of claim 20 including at least slightly bending a portion of each projection as the two projections are interconnected.

21. The method of claim 21 wherein the projections are at least slightly flexed in response to engaging the respective deflectors carried by the projections.

22. The method of claim 19 wherein the locking surfaces comprise locking tabs and wherein the stops comprises locking seats and wherein when the projections are interconnected the locking tabs of the respective projections are seated within the locking seats of the projections.

23. The method of claim 19 including contacting a terminal end of the first projection with a deflector disposed on the second projection and deflecting the terminal end of the first projection downwardly through the opening in the second projection; and contacting a terminal end portion of the second projection with a deflector on the first projection and deflecting the terminal end of the second projection upwardly through the opening in the first projection.

24. The method of claim 24 wherein the locking tabs carried by the first and second projections snap into the tab receiving openings once the terminal ends of the respective projections have been inserted through the openings in the respective projections.

25. The stud spacer of claim 1 including one or more flanges disposed on either end portion of the main member for connecting to one of the two studs.

26. The stud spacer of claim 26 including at least two flanges, one flange disposed on the first end portion of the main member and one flange disposed on the second end of the main member; each flange extending generally normal relative to the main member.

27. The stud spacer of claim 1 including a pair of spaced apart flanges disposed on the first end portion of the main member for connecting to one of the two studs; the spaced apart flanges being angled with respect to the main member such that the flanges extend

generally normal to the main member; and wherein the projection extending from the first end portion of the main member extends between the pair of spaced apart flanges.

28. The stud spacer assembly of claim 7 wherein each stud spacer includes opposed ends, and wherein each stud spacer includes one or more flanges disposed on one or both end portions of the stud spacer for connecting the stud spacer to one or more studs.

29. The stud spacer assembly of claim 29 wherein each stud spacer includes a pair of spaced apart flanges disposed on each end portion thereof for connecting to one stud.

30. The wall structure of claim 16 wherein each stud spacer includes one or more flanges disposed on opposite end portions for connecting each stud spacer to at least two spaced apart studs that form a part of the wall structure; and wherein each flange is connected to one stud such that the series of stud spacers that form a part of the wall structure are interconnected to the studs.

31. The wall structure of claim 31 wherein each consecutive pair of studs of the wall structure are interconnected by a stud spacer, and wherein the stud spacer includes at least one flange disposed on opposite ends thereof, and wherein each flange is connected to one stud.

32. The method of claim 19 including securing at least one of the first or second stud spacers to the stud.

33. The method of claim 33 wherein each of the stud spacers includes one or more flanges disposed on one or more end portions thereof, and wherein the method includes

fastening the one or more flanges of at least one of the stud spacers to the stud thereby interconnecting the stud with at least one of the stud spacers.

(IX.) EVIDENCE APPENDIX

Exhibit A: Yahoo! Education, http://education.yahoo.com/reference/dictionary/entry/stud as submitted as Exhibit A in Applicants' Response to Office Action dated May 8, 2007.

Definition of stud

Email this page to a friend HOUGHTON MIFFLIN
< stuck-up stud >

stud [1] □◁□ (stŭd) KEY □

NOUN:

1. An upright post in the framework of a wall for supporting sheets of lath, wallboard, or similar material.
2. A small knob, nail head, or rivet fixed in and slightly projecting from a surface.
3. a. A small ornamental button mounted on a short post for insertion through an eyelet, as on a dress shirt.
   b. A buttonlike earring mounted on a slender post, as of gold or steel, for wearing in a pierced earlobe.
4. a. Any of various protruding pins or pegs in machinery, used mainly as a support or pivot.
   b. One of a number of small metal cleats embedded in a snow tire to increase traction on slippery or snowy roads.
5. A metal crosspiece used as a brace in a link, as in a chain cable.

TRANSITIVE VERB:
stud□ded , stud□ding , studs

1. To provide with or construct with studs or a stud.
2. To set with studs or a stud: *stud a bracelet with rubies.*
3. To be scattered over: *Daisies studded the meadow.*

EXHIBIT A

ETYMOLOGY:
Middle English stode, from Old English studu; see stā- in Indo-European roots

Thesaurus: synonyms for stud

(X.) RELATED PROCEEDINGS APPENDIX

There are no related proceedings.

Respectfully submitted,

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